

UPGRADING TISSUE BANKING THROUGH RADIATION STERILIZATION (SLR/7/002)

E2 New

MODEL PROJECT

CORE FINANCING

YEAR	Experts		Group Activity	Equipment	Fellowships		Scientific Visits		Group Training	Sub-Contracts	Misc. Comp.	TOTAL
	m/d	US \$	US \$	US \$	m/d	US \$	m/d	US \$	US \$	US \$	US \$	US \$
1999	0/10	4,900	0	100,000	0/0	0	0/14	5,040	0	0	0	109,940
2000	0/14	7,210	0	35,000	3/0	10,800	0/0	0	0	0	0	53,010
2001	0/14	7,560	0	0	0/0	0	0/0	0	0	0	0	7,560

First Year Approved: 1999

OBJECTIVES: To upgrade the range and quality of tissue grafts for transplantation purposes in Slovakia by means of radiation sterilization and to expand the activities of the Central Tissue Bank in Bratislava by introducing bone tissue processing.

BACKGROUND: The health care sector in Slovakia has been severely handicapped since former Czechoslovakia split into two independent states in 1993, though tissue banking there had been one of the most advanced in Europe since the first countrywide tissue bank was founded in the early 1950s and had been supplying the country with good quality tissue grafts. Unfortunately, all the tissue banking facilities remained in the Czech Republic. Tissue banking activity in Slovakia had started in 1988 but it took eight years until the new facilities of the Central Tissue Bank (CTB) built by the Ministry of Health could be opened in 1996. The Government supports transplantation activities. A National Organ Transplant Centre (NCOT) was created in 1995 and serves as an administrative, co-ordination, and laboratory centre for both organ and tissue transplantation activities. The biggest problem is still the lack of facilities for the processing and radiation sterilization of bone and other connective tissue graft. The import of processed tissue grafts is costly and cannot be covered by the health insurance system. The Agency was asked for technical support to establish a facility for the radiation sterilization of tissues and medical supplies and to upgrade the CTB.

PROJECT PLAN: The first priority is to establish a radiation sterilization facility in the Institute of Preventive and Clinical Medicine (UPKM). The CTB will upgrade existing facilities for processing, preserving and storing tissue transplants. After packing, labelling and freezing, the grafts can be transported for sterilization to UPKM, and then brought back to the tissue bank for safe storage. Extensive research on biomaterials will be carried out at the School of Chemistry of the Technical University in Bratislava.

NATIONAL COMMITMENT: The Slovak Government (Ministry of Health) and NCOT support the transplantation activities. NCOT and Slovakia's four tissue banks have been linked for computerized data exchange.

AGENCY INPUT: The Agency will provide technical advice on the design of a radiation sterilization facility, methods of radiation sterilization, standardization of the sterilization process and follow-up activities. It will also provide some equipment and train staff in radiation sterilization.

PROJECT IMPACT: An estimated 1,000-1,500 ill or injured people will benefit annually from treatment by tissue grafting. The project will have a major economic impact on health care.